

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A PROPOSED TRAFFIC CONTROL SIGNAL AND STREET LIGHTING AT THE INTERSECTION OF MD 108 AT SHEPPARD LANE IN HOWARD COUNTY, MARYLAND. MD 108 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE MD 108 APPROACHES OPERATING CONCURRENTLY AND THE SHEPPARD LANE APPROACH OPERATING ALONE.

EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING WILL BE PROVIDED FOR EASTBOUND MD 108 APPROACH. EMERGENCY PRE-EMPTION WILL BE PROVIDED ON THE EASTBOUND MD 108 APPROACH.

NORMAL OPERATION: THE INTERSECTION WILL OPERATE IN FULL-COLOR MODE FROM 5:00 AM TO 11:00 PM.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS), INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.02-01 (SHOULDER WORK)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

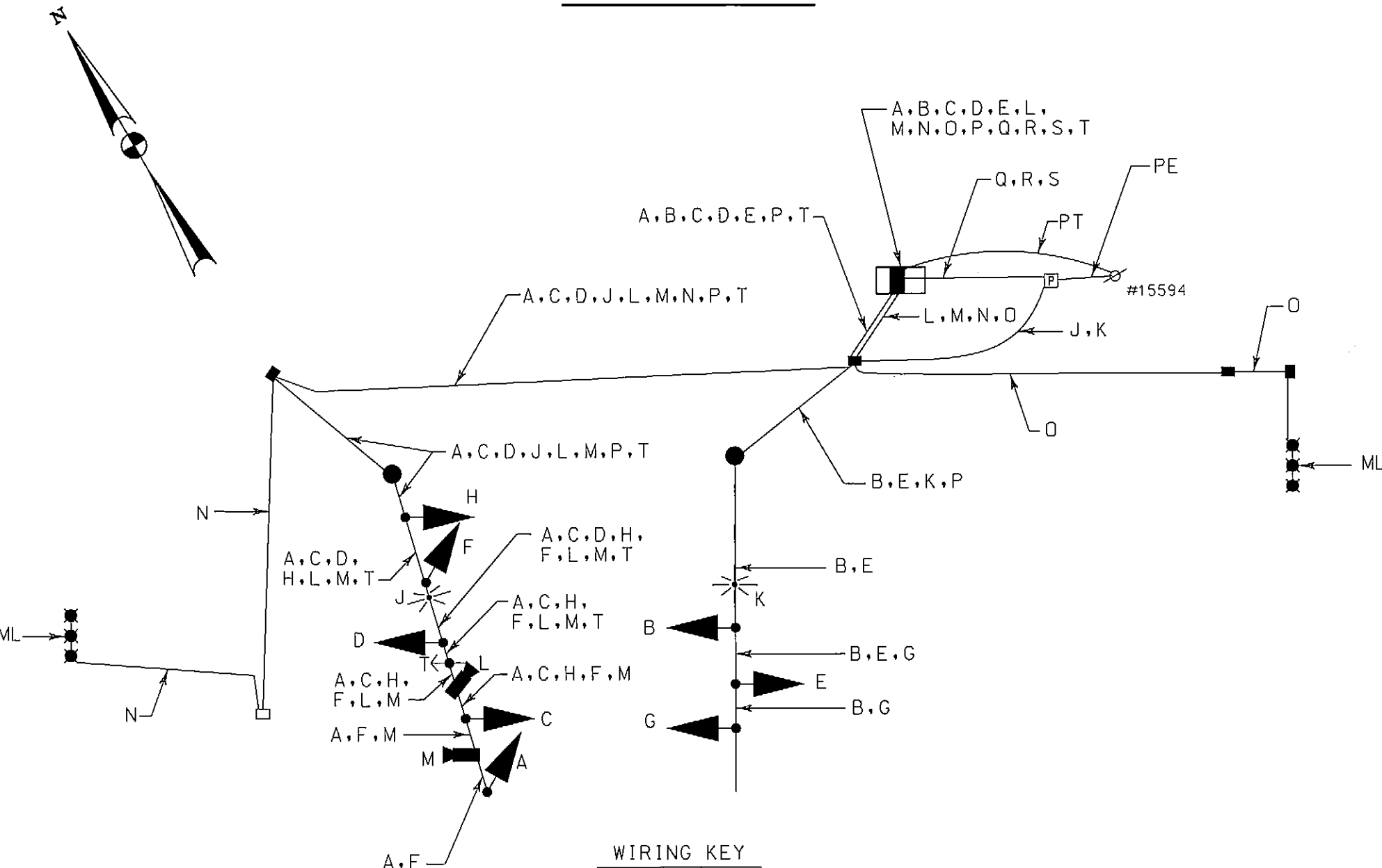
MR. JOHN CONCANNON  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 624-8140/8141

MS. ANDREA ABEND  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 624-8115/8116

MS. SUE PALMER  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 624-8105

MR. RICHARD L. DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

WIRING DIAGRAM



- WIRING KEY
- A, B, C } 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - D, E } 4-CONDUCTOR OPTICOM CABLE
  - F, G, H } 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
  - I, J, K } 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) - TRAY CABLE
  - L, M } VIDEO CAMERA DETECTION LEAD-IN CABLE
  - N, O } MICROLOOP PROBE LEAD-IN
  - P } STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
  - Q, R, S } 1-CONDUCTOR ELECTRICAL CABLE (NO. 8 A.W.G.)
  - ML - MICROLOOP PROBE SET
  - PT - PROPOSED UNDERGROUND TELEPHONE SERVICE
  - PE - PROPOSED UNDERGROUND ELECTRICAL SERVICE
  - + - 3/4 IN. X 10 FT. GROUND ROD

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9000	1 EACH	NEMA SIZE "S" BASE MOUNTED CABINET
9000	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED ASC III CONTROLLER WITH INTERSECTION MONITOR
9016	1 EACH	FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9570	80 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (GROUND MOUNT) : <ul style="list-style-type: none"><li>- 2 EACH W3-3 SIGN (48 IN. x 48 IN.) WITH "NEW" PANEL (30 IN. x 30 IN.) AND FLAG - GROUND MOUNT.</li><li>- 2 EACH D3-2(1) "SHEPPARD LANE - NEXT SIGNAL" SIGN (VAR. x 30 IN.) - GROUND MOUNT</li><li>- 1 EACH W1-7 (48 IN. X 24 IN.) - GROUND MOUNT</li></ul>
9571	26 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) : <ul style="list-style-type: none"><li>- 1 EACH D-3(1) SIGN (VARIABLE x 16 IN.) DUAL FACED - MAST ARM MOUNT</li><li>- 1 EACH M1-5(5) ASSOCIATED SHIELD ASSEMBLY "EAST, MD, LEFT ARROW; WEST MD RIGHT ARROW" (30 IN. x 72 IN.) - POLE MOUNT</li></ul>

EQUIPMENT LIST "C"

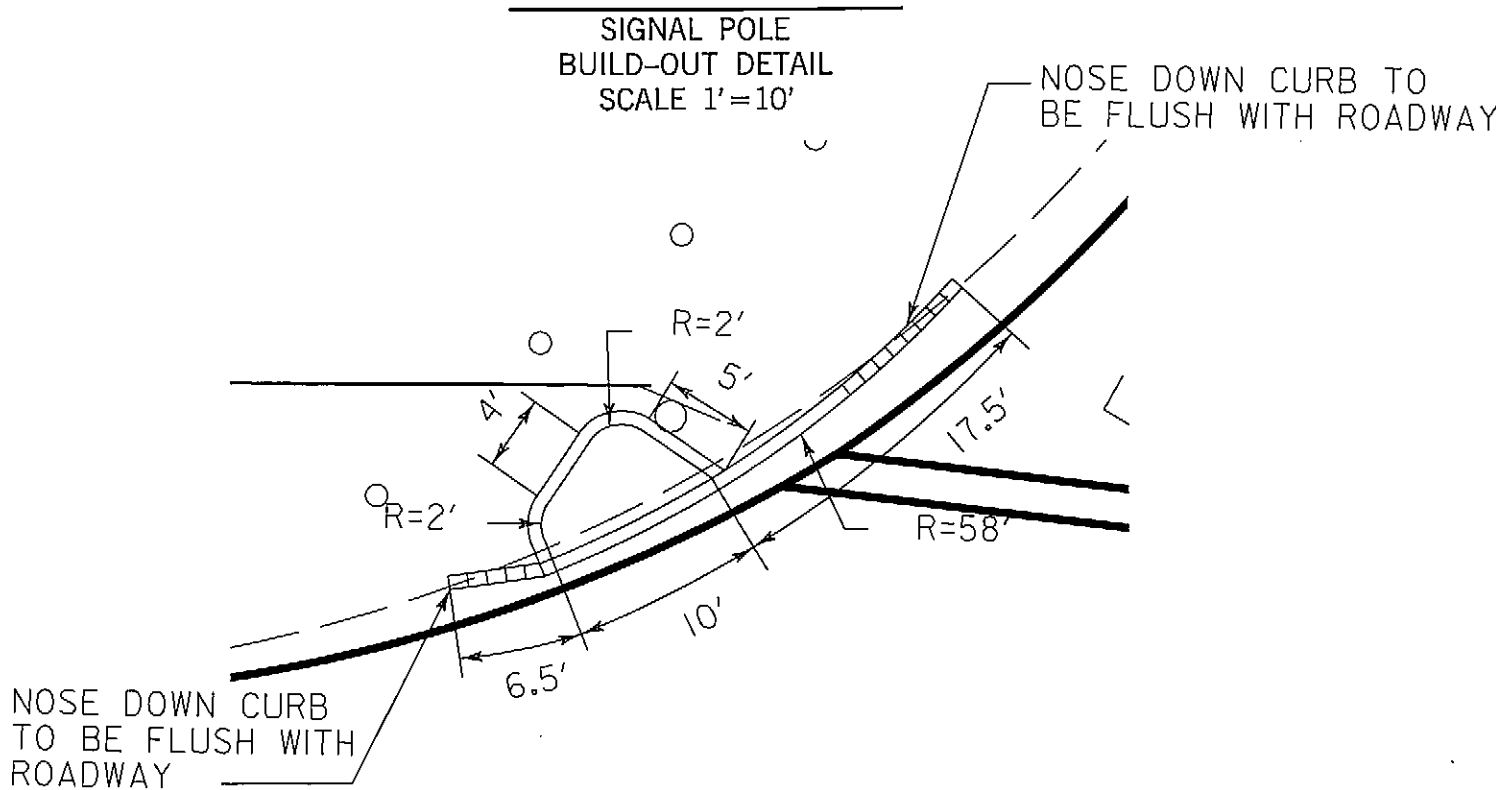
C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

PHASE CHART

	1	2	3	4	5	6	7	8
PHASE 1 AND 6	G	G	G	R	R	R	R	R
1 AND 6 CHANGE	G	G	G	R	R	R	R	R
PHASE 2 AND 6	G	G	G	G	G	G	R	R
2 AND 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R
PHASE 4	R	R	R	R	R	R	G	G
4 CHANGE	R	R	R	R	R	R	Y	Y
EMERGENCY PRE-EMPTION	G	G	G	R	R	R	R	R
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FLY	FLY

DIMENSION DIAGRAM



EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	CLASS 2 EXCAVATION
2002	4 C.Y.	TEST PIT EXCAVATION
5003	50 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH
5005	40 L.F.	24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
6001	50 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER 12 INCH GUTTER PAN 8 INCH DEPTH
6002	40 S.F.	5 INCH CONCRETE SIDEWALK
8001	25 EACH	12 INCH LED SIGNAL HEAD SECTION
8004	3 EACH	8 INCH LED SIGNAL HEAD SECTION
8007	2 EACH	ANY SIZE LIGHTING ARM ON SIGNAL POLE WITH 250 WATT HPS LAMP & LUMINAIRE
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8017	1 EACH	MAST ARM POLE & 38 FT MAST ARM ANY 'T' DIMENSION
8018	1 EACH	MAST ARM POLE & 50 FT MAST ARM ANY 'T' DIMENSION
8021	2 EACH	MICROLOOP PROBE (ANY LENGTH) LEAD IN CABLE UP TO 1000 FT
8023	1 EACH	REM & DISPOSE MAT & EQUIP PER ASSIGN
8028	2 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8029	15 L.F.	1 INCH DETECTOR SLEEVE GALVANIZED OR FLEXIBLE LIQUID TIGHT
8032	210 L.F.	4 CONDUCTOR OPTICOM CABLE
8034	350 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC
8037	220 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8038	605 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8039	185 L.F.	WOOD SIGN SUPPORTS UP TO 4 X 6
8040	110 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8042	210 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8045	125 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8046	4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8047	1 EACH	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8048	1 EACH	OPTICOM EMITTER SYSTEM, 700 SERIES
8049	1 EACH	OPTICOM NO. 721 DETECTOR EYE
8051	1 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	40 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8056	1040 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
8058	410 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
8062	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT

TOD NO: XX650-13M  
SHA NO: HO221A57/B57  
MD 108 @ Sheppard Lane

**SHA** STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION  
MD 108 (CLARKSVILLE PIKE) AT SHEPPARD LANE  
CLARKSVILLE, MARYLAND

GENERAL INFORMATION SHEET

SCALE AS NOTED ADVERTISED DATE JANUARY 6, 2010 CONTRACT NO. XX6505185

DESIGNED BY B. DONOWAY COUNTY HOWARD  
DRAWN BY B. DONOWAY LOGMILE 13010804.49  
CHECKED BY B. DONOWAY TMS NO. 1099  
F.A.P. NO. SEE DETAIL SHEET TOD NO.

TS NO. 4826 DRAWING **TSP-2** OF 2 SHEET NO. 2 OF ###

PLOTTED: January 25, 2010  
FILE: N:\1889-100\0400\p8g-nc02\_1099.dgn